

Malmstrom Air Force Base, 564th Missile Squadron,
Quebec-16 Launch Facility

HAER NO. MT-138-G

East of I-15 and State Route 366 / Ledger Road

Vicinity of Ledger

Pondera County

Montana

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

Intermountain Support Office - Denver

National Park Service

P.O. Box 25287

Denver, Colorado 80225-0287

HISTORIC AMERICAN ENGINEERING RECORD

MALMSTROM AIR FORCE BASE, 564th MISSILE SQUADRON QUEBEC-16 LAUNCH FACILITY

HAER NO. MT-138-G

Location: Approximately 10.4 miles east of Interstate 15 and 4.4 miles east of Ledger just off of State Route 366/Ledger Road in the Northwest ¼ of the Northwest ¼ of Section 15, Township 29 North, Range 1 West.

UTM: Zone 12 / 445976 Easting / 5347175 Northing

County: Pondera County, Montana

Date of Construction: Constructed as a Minuteman II system in 1965-1966; converted to a Minuteman III system in 1975

Architect: Ralph M. Parsons Company

Builder: Morrison Knudsen Company and Associates

Present Owner: Malmstrom Air Force Base (MAFB), US Air Force (USAF)

Present Use: Deactivated Minuteman III Launch Facility (LF)

Significance: The Quebec-16 Launch Facility is one of 50 LFs associated with the 564th, a Minuteman Intercontinental Ballistic Missile (ICBM) squadron based at Malmstrom Air Force Base, Montana. The LF is an unmanned below-ground silo which stores a fueled missile ready for launch. In common with other Minuteman installations in the nation, the 564th Missile Squadron's (MS) missiles were grouped in tens, with each grouping oriented around a single Missile Alert Facility (MAF). Each MAF housed the personnel and equipment required to remotely monitor, control and command operations at its 10 associated LFs.

The Quebec-16 and two other 564th LFs were determined representative examples of the infrastructure and unique technological system developed in response to the nation's Cold War defense and strategic deterrence needs. As such, they are historically significant for their association with the late twentieth-century defense policy of the United States. Military leaders found the rural Montana countryside surrounding Malmstrom Air Force ideally suited the needs of the Minuteman program, being situated within striking range of the Soviet Union. Of greater importance was the region's low population density which

meant comparatively minimal loss of life in the event of nuclear attack.

Additionally, the Quebec-16 embodies some key aspects defining the Minuteman's technological superiority over its ICBM predecessors. Top among these were consolidation of missile fuel, storage and launch activities into a single facility, and development of a larger and far more effective warhead. Launch of a Minuteman missile could occur within less than one minute after appropriated command.

The Quebec-16 LF is also significant as representations of the architectural evolution of the LF. In addition to modifications for accommodating larger missiles, other design improvements to the Minuteman I LF centered on improving the survivability of the missile itself as well as possible maintenance crews on-site in the event of nuclear attack. Although of blast-resistant hard construction, a Minuteman I's underground missile silo was still highly-vulnerable to the severe ground tremors associated with the spread of nuclear radiation, while no hard life support facilities had been provided. Minuteman II designers addressed the need for bettering the prospect of missile survival by equipping silos with shock absorbing devices to maintain the structure completely steady if hit by nuclear tremors. Additionally, equipment needed to maintain the missile on prolonged strategic alert was relocated from a soft to a hard structure, also complete with shock absorbers. That same hard structure was fitted with life support facilities as well. It was expected to sustain a livable environment for two weeks after attack. Conversion of a Minuteman II LF to a Minuteman III retained those improvements.